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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/800,004	03/06/2001	Katsuyoshi Fujita	5000-4853	5254

7590 06/05/2002

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New York, NY 10154

EXAMINER

ATKINSON, CHRISTOPHER MARK

ART UNIT	PAPER NUMBER
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3743

DATE MAILED: 06/05/2002

Please find below and/or attached an Office communication concerning this application or proceeding.



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This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

OFFICE ACTION SUMMARY

☒ Responsive to communication(s) filed on 3/14/02

☐ This action is FINAL.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 D.C. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-15 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-15 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☒ The drawing(s) filed on 3/6/2001 is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☒ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of Reference Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

- SEE OFFICE ACTION ON THE FOLLOWING PAGES -

Art Unit:

Election/Restriction

Applicant's election without traverse of species A as illustrated in Figures 1-4 in Paper No. 6 is acknowledged.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the medium passage, the hydrogen passage(s), the heat medium and the main passage must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claims 1 and 7, the recitation "the hydrogen" lacks antecedence and the recitation "hydrogenstorage" is indefinite and appears to be misspelled or needs to be two different words. In view of the plurality of claim errors, the Examiner has only listed a few of these errors and it is requested applicant correct all claim errors.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form

Art Unit:

the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 4 and 8-9 are rejected under 35 U.S.C. § 102(b) as being anticipated by

Rockenfeller et al.

Claims 1-4, 6-7 and 9 are rejected under 35 U.S.C. § 102(b) as being anticipated by Asami et al.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Claim 5 is rejected under 35 U.S.C. § 103 as being unpatentable over Rockenfeller et al. and Asami et al. The patent's of over Rockenfeller et al. and Asami et al. disclose all the claimed features of the invention with the exception of the specifically claimed material. It would have

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been obvious to one having ordinary skill in the art at the time the invention was made to have the specifically claimed material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Claims 3, 6-7 and 10-12 are rejected under 35 U.S.C. § 103 as being unpatentable over Rockenfeller et al. in view of Nikai, Januschkowetz or Yanagi et al. The patent of Rockenfeller et al. discloses all the claimed features of the invention with the exception of the claimed shapes.

The devices of Nikai, Januschkowetz and Yanagi et al. the molded body and the flow passages being flat for the purpose of obtaining a compact heat exchanger which generates an excellent absorbing and desorbing surface efficiency. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in over Rockenfeller et al. the molded body and the flow passages being flat for the purpose of obtaining a compact heat exchanger which generates an excellent absorbing and desorbing surface efficiency as disclosed in Nikai, Januschkowetz and Yanagi et al. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the specifically claimed material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Claim 13 is rejected under 35 U.S.C. § 103 as being unpatentable over Rockenfeller et al. in view of Nikai, Januschkowetz or Yanagi et al. as applied to claims 3, 6-7 and 10-12 above, and

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further in view of Onishi et al. The patent of Rockenfeller et al. as modified, discloses all the claimed features of the invention with the exception of the body including a chamfer.

The device of Onishi et al. discloses bodies (11) including a chamfer for the purpose of an having an efficient packing of the bodies within a housing which increases the filling rate of hydrogen. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in over Rockenfeller et al. as modified, a chamfer for the purpose of an having an efficient packing of the bodies within a housing which increases the filling rate of hydrogen as disclosed in Onishi et al.

Claim 14 is rejected under 35 U.S.C. § 103 as being unpatentable over Rockenfeller et al. in view of Nikai, Januschkowetz or Yanagi et al. as applied to claims 3, 6-7 and 10-12 above, and further in view of Davis. The patent of Rockenfeller et al. as modified, discloses all the claimed features of the invention with the exception of a connecting section between upstream and downstream sections.

The patent of Davis discloses that it is known to have a connecting section between upstream and downstream sections for the purpose of increasing the fluid flow length which increases the time the fluid exchanges heat which increases the overall heat exchange efficiency. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in over Rockenfeller et al. as modified, a connecting section between upstream and downstream sections for the purpose of increasing the fluid flow length which increases the time the fluid exchanges heat which increases the overall heat exchange efficiency as disclosed in

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Davis.

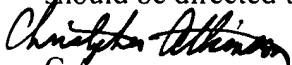
Claim 15 is rejected under 35 U.S.C. § 103 as being unpatentable over Rockenfeller et al. in view of Nikai, Januschkowetz or Yanagi et al. as applied to claims 3, 6-7 and 10-12 above, and further in view of Davis as applied to claim 14 above, and further in view of Farfaletti-Casali et al. The patent of Rockenfeller et al. as modified, discloses all the claimed features of the invention with the exception of the header including both upstream and down stream sections.

The patent of Farfaletti-Casali et al. discloses that it is known to have a header including both upstream and down stream sections for the purpose of reducing the number of parts and reducing overall size, weight and cost. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in over Rockenfeller et al. as modified, a header including both upstream and down stream sections for the purpose of reducing the number of parts and reducing overall size, weight and cost as disclosed in Farfaletti-Casali et al.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Atkinson whose telephone number is (703) 308-2603.


C.A.

June 2, 2002

CHRISTOPHER ATKINSON
PRIMARY EXAMINER